

Serial No. 10/602,687

Attorney Docket No. 01-437

REMARKS

The applicants appreciate the indication that the drawings are accepted.

Please note that the Office Action Summary erroneously indicates that claims 1-6 and 14 are withdrawn. Correction is respectfully requested to indicate that they were canceled, instead.

Claims 7-13 and 15-16 are pending. Claims 1-6 and 14 were previously canceled. By way of the above amendment, claims 7-9 and 15-16 are canceled. The applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

Claim 16 is objected to. By way of the above amendment, claim 16 is canceled.

Withdrawal of the objection is therefore respectfully requested.

Claims 7, 8 and 15-16 were rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 7,035,806, Kojima et al. ("Kojima"). Claims 9-12 were rejected under 35 USC 103(a) as being unpatentable over Kojima, further in view of JP 2000-020086, Kaneyoshi ("Kaneyoshi"). Claim 10 is amended to incorporate independent claim 7, and claims 7-9 are canceled, in the above amendment. The applicants respectfully request that this rejection be withdrawn for the following reasons.

Claim 10 recites in combination, for example, "a substituting unit for determining whether each of the reference commands recognized by the speech recognizing unit is a selectable reference command that can be selected in the certain operating state, and for substituting, when the recognized reference command is determined to be not the selectable reference command, one of the selectable reference commands for the recognized reference

Serial No. 10/602,687

Attorney Docket No. 01-437

command, wherein, when the recognized reference command is one of a reciprocal pair of two reference commands that are for working oppositely to each other and the recognized reference command is determined to be not the selectable reference command, the substituting unit substitutes the other of the reciprocal pair for the recognized reference command." Thereby, the system can reduce misrecognition of commands.

To properly reject a claimed invention, the examiner must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness with respect to a claimed invention, all the claim limitations must be taught or suggested by the reference (or references when combined). *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Moreover, it is necessary to identify the reason why a person of ordinary skill in the art would have combined allegedly known elements in the manner claimed. *KSR Int'l Co. v. Teleflex, Inc.* 550 U.S. ___, 82 U.S.P.Q.2d 1385 (2007). If the examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of patent. *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

The applicants provide herein a selection of some examples of limitations in the claims which are neither taught nor suggested by Kojima or Kaneyoshi. The final Office Action admits that Kojima "do not teach wherein, when the recognized reference command is one of a reciprocal pair of two reference commands that are for working oppositely to each other and the recognized reference command is determined to be not the selectable reference command, the substituting unit substitutes the other of the reciprocal pair for the recognized reference command." (Final Office Action page 6.) Recognizing that Kojima fails to teach and/or suggest the invention as claimed, Kaneyoshi is cited to remedy the deficiencies.

Serial No. 10/602,687

Attorney Docket No. 01-437

Nevertheless, Kaneyoshi fails to remedy such deficiencies. For example, Kaneyoshi's use of a coincidence degree of recognition results does not teach or suggest "the substituting unit substitutes the other of the reciprocal pair for the recognized reference command," where the other is "for working oppositely." To the contrary, Kaneyoshi uses as the recognition result, the candidate with the highest coincidence degree of recognition results. Consequently, Kaneyoshi has more mis-recognition than the presently claimed invention.

For an illustration of the significance of the differences, the applicant provides the following examples of operation of a device according to Kaneyoshi, current claim 10, and current claim 11. The operation considers the following conditions:

Example of operation:

(i) State of Device: Audio device is presently in the ON state.

(i) User's utterance: "Audio off"

(iii) List of registered recognition candidates with concordance rate and priority:

Recognition Candidates	(Recognized) Concordance Rate	Previously Set Priority
audio on	0.9	1 (low)
audio help	0.8	10 (high)*
audio off	0.7	10 (high)
am (radio station)	0.3	10 (high)
fm (radio station)	0.3	10 (high)

(*In operation, "audio help" is set to the same level as the other effective commands, so that it can always be selectable if requested by a user.)

Serial No. 10/602,687

Attorney Docket No. 01-437

Kaneyoshi compared to Claim 10

In Kaneyoshi's device, in the above example, "audio help" is selected in response to an "audio off" utterance. Even if "audio on" is eliminated due to a consideration of the state of the device, "audio help" is still selected." This causes an abnormal operation.

Claim 10

Using the above example, although "audio on" is initially selected in response to an "audio off" utterance, "audio off" (the command which works oppositely) is then selected after consideration of the state of the device. On the other hand, if "audio on" and "audio off" have a higher concordance rate than "audio help," the normal operation takes place without substitution.

In summary, operation of a system according to claim 10 decreases mis-recognition compared with Kaneyoshi. Generally, if a certain command is apt to be mis-recognized, the certain command may be repeatedly mis-recognized even when repeatedly uttered. Reducing the degree of mis-recognition, even if an incremental improvement, can provide a user with a distinct advantage.

Kaneyoshi compared to Claim 11

In Kaneyoshi's device, using the above example, when "audio on" is eliminated in consideration of the state of the device (i.e., the device is in ON state), "audio help" is selected in response to and "audio off" utterance, so long as "audio off" does not have a concordance rate higher than that of "audio help."

Claim 11

Using the above example, as explained with claim 10, although "audio on" is initially selected in response to an "audio off" utterance, "audio off" (the command which works oppositely) is then selected after consideration of the state of the device. On the other hand, if

Serial No. 10/602,687

Attorney Docket No. 01-437

"audio on" and "audio off" have a higher concordance rate than "audio help," the normal operation takes place without substitution. Compared with Kaneyoshi, a system according to claim 11 decreases mis-recognition.

Claim 12

Consider a different example, where the commands include "Volume Up" and "Volume down." In this example, it could happen that the device is at maximum volume but the user requests "Volume up." In this situation, the device can let the user know that the present volume is already at the maximum and therefore it is impossible to further increase the volume. If a system according to claim 12 is provided, then the improper substitution of "Volume down" in response to the "Volume up" command can be prevented. Compared with Kaneyoshi's system, a system according to claim 12 decreases mis-recognition.

Hence, Kojima and Kaneyoshi, alone or in combination, fail to teach or suggest the combination of features recited in claims 10, 11, or 12, when considered as a whole.

With respect to the rejected dependent claims, applicant respectfully submits that these claims are allowable not only by virtue of their dependency from independent claim 10, but also because of additional features they recite in combination.

Applicants respectfully submit that, as described above, the cited art does not show or suggest the combination of features recited in the claims. Applicants do not concede that the cited art shows any of the elements recited in the claims. However, applicants have provided specific examples of elements in the claims that are clearly not present in the cited art.

Applicants strongly emphasize that one reviewing the prosecution history should not interpret any of the examples applicant has described herein in connection with distinguishing over the cited art as limiting to those specific features in isolation. Rather, for the sake of

Serial No. 10/602,687

Attorney Docket No. 01-437

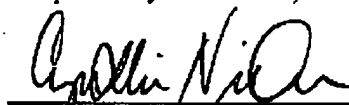
simplicity, applicants have provided examples of why the claims described above are distinguishable over the cited references.

Applicants respectfully request entry of the present amendment for the following reasons. First, the amendments to the claims do not raise new issues requiring further search since the amendments involve canceling claims or rewriting a dependent claim in independent form. This should not be burdensome for the examiner to review. Also, the amendment is considered to place the application in condition for allowance. Accordingly, the applicants respectfully request entry of the present Amendment.

In view of the foregoing, the applicants submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

If there are any problems with the payment of fees, please charge any underpayments and credit any overpayments to Deposit Account No. 50-1147.

Respectfully submitted,



Cynthia K. Nicholson
Reg. No. 36,880

Posz Law Group, PLC
12040 South Lakes Drive, Suite 101
Reston, VA 20191
Phone 703-707-9110
Fax 703-707-9112
Customer No. 23400